Claims

What is claimed is:

1.   A computing system comprising:

a tabular data stream (TDS) protocol that comprises:

a multiple active result set (MARS) header, and

a data field that is part of the MARS header and identifies a number of pending requests known by a client to a server, the MARS header is employed to synchronize execution of queries for communication between the client and the server, regardless of buffer size for the client and the server.

2.   The system of claim 1, the TDS protocol further comprises a transaction descriptor header that enables a plurality of active transactions under a single session.

3.   The system of claim 1, the TDS protocol supports a chunked data type within the communication data stream.

4.   The system of claim 1, the TDS protocol further comprises an environmental change event feature that is sent to the client when a transactional state of the server changes.

5.   The system of claim 5, the state of server changes when a connection is reset to another server as part of a data base mirror environment.

6.   The system of claim 1, the client cancels a command being currently executed *via* transmittal of a non severe attention signal without a connection drop of the communication.

7.   The system of claim 1, the client executes a remote procedure call on the server.

8.   The system of claim 1, the client requests a connection to enlist in a distributed transaction coordinator (DTC).

9. The system of claim 1, the TDS protocol enables a change of order for parameters outputted from the server, and retrieval of parameters from an application programming interface (API) of the network environment.

10. The system of claim 1, the TDS protocol specifies a new password as part of a login procedure when an old password is presented.

11. A computing system comprising:

a server in communication with a client *via* a tabular data stream (TDS) protocol in a network environment; and

the TDS protocol comprising a query notification header with a data field that requests updates related to a query at a time the communication is initially established.

12. The method of claim 11 the query notification establishes channels and setup for the updates sent by the server to the client.

13. The system of claim 11, the query notification header enables development of caching layers on top of SQL server applications such that the caching layer remain transparent to the client.

14. A method for establishing communication between a server and a client *via* a tabular data stream (TDS) protocol comprising:

assigning a major number and a minor number to the TDS protocol based on a release date and a software version thereof;

determining the major number and minor number for the client and the server;

negotiating down to the TDS protocol common to the server and the client based on comparing respective major numbers and minor numbers; and,

initiating handshake *via* the TDS protocol common to the server and the client.

15. The method of claim 14, the major number having a 0xNN format and the minor number having a 0x000M format, with M, N being integers.

16. The method of claim 14 further comprising providing an increment number as a further designation associated the communication protocol.

17. The method of claim 16, the increment number has a 0xFF format, F being a 4-bit hexadecimal value..

18. A method for canceling a specific tabular data stream (TDS) request in a client server network comprising:

sending a non severe attention signal by a client to a server;

continuing a read of data by the client;

receiving an acknowledgment by the client sent from the server in response to the sending act; and

canceling the request without affecting state of a current transaction between the client and the server.

19. The method of claim 18 further comprising discarding buffers received by the client after sending the non-severe attention signal.

20. The method of claim 19 further comprising discarding buffers received by the client before receiving the acknowledgement.

21. A method of changing a password in a client server network comprising:
specifying a new password as part of a login procedure;
verifying a previous password as part of the login procedure; and
initiating handshake and session establishment with the new password.

22. A method for re-setting a client driver comprising:

setting an attention bit in a TDS header of a packet sent by a server to a client;

notifying the client *via* the attention bit of a desire to abort a current request; and

canceling the current request without dropping an entire connection between the server and the client.

23. A computing system comprising:

means for issuing a query by a client;

means for processing the query by a server; and

means for sending the query results to the client such that the client and server are synchronized regardless of a buffer size of the computing system.

24. A computing system comprising:

means for issuing a query by a client;

means for processing the query by a server; and

means for sending the query results to the client such that a current command being executed as part of the query is cancelable without dropping a connection established for the query.

25. A designator for a tabular data stream (TDS) protocol comprising:

means for identifying a TDS protocol based on a release date and a software version; and

means for determining a TDS protocol common to a server and a client.